

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS

UNITED STATES OF AMERICA,

Plaintiff,

V.

FLINT HILLS RESOURCES PORT ARTHUR, LLC,

Defendant.

No. 1:14CV169

## COMPLAINT

The United States of America (“United States”), by the authority of the Attorney General and through the undersigned attorneys, acting at the request and on behalf of the Administrator of the United States Environmental Protection Agency (“EPA”), files this Complaint and alleges as follows:

### NATURE OF ACTION

1. This is a civil action against Flint Hills Resources Port Arthur, LLC (“FHR”) pursuant to Sections 113(b) and 167 of the Clean Air Act (“CAA” or “Act”), 42 U.S.C. §§ 7413(b) and 7477. The Complaint seeks civil penalties and injunctive relief based on alleged violations of the CAA at FHR’s chemical plant located at 4241 Savannah Avenue, Port Arthur, Jefferson County, Texas (the “Facility”). The claims involve the Facility’s three flares and FHR’s program to detect leaking equipment at the Facility and repair it.

2. With respect to the three flares at the Facility, the United States alleges, subject to a reasonable opportunity for further investigation or discovery, that FHR has violated and/or continues to violate the following statutory and regulatory requirements:

- a. The Prevention of Significant Deterioration (“PSD”) requirements found in 42 U.S.C. § 7475 and 40 C.F.R. §§ 52.21(a)(2)(iii) and 52.21(j)–52.21(r)(5);
- b. The Non-Attainment New Source Review (“NNSR”) requirements found in 42 U.S.C. §§ 7502(c)(5), 7503(a)–(c) and 40 C.F.R. Part 51, Appendix S, Part IV, Conditions 1–4;
- c. The federally enforceable Minor New Source Review (“Minor NSR”) requirements adopted and implemented in the Texas State Implementation Plan (“SIP”) pursuant to 42 U.S.C. § 7410(a)(2)(C) and 40 C.F.R. §§ 51.160–51.164;
- d. The New Source Performance Standards (“NSPS”) promulgated at 40 C.F.R. Part 60, Subparts A, VV, and VVa, pursuant to Section 111 of the CAA, 42 U.S.C. § 7411;
- e. The National Emission Standards for Hazardous Air Pollutants (“NESHAPs”) promulgated at 40 C.F.R. Part 61, Subparts A and FF and 40 C.F.R. Part 63, Subparts A, G, SS, and YY, pursuant to Section 112 of the CAA, 42 U.S.C. § 7412;
- f. The requirements of Title V of the CAA found at 42 U.S.C. §§ 7661a(a), 7661b(c), 7661c(a); and 40 C.F.R. §§ 70.1(b), 70.5(a) and (b), 70.6(a) and (c), and 70.7(b);
- g. The portions of the Title V permits for the Facility that adopt, incorporate, or implement the provisions cited in a–e and h; and
- h. The federally enforceable Texas State Implementation Plan provisions that incorporate, adopt, and/or implement the federal requirements listed in a–b and d–e, found at Title 30, Chapter 116, Subchapter B of the Texas Administrative Code.

3. The United States also alleges that FHR has violated and/or continues to violate the Leak Detection and Repair (“LDAR”) requirements promulgated pursuant to Sections 111

and 112 of the CAA and found at 40 C.F.R. Part 60, Subpart VV; 40 C.F.R. Part 61, Subpart V; and 40 C.F.R. Part 63, Subparts H and UU.

### **JURISDICTION AND VENUE**

4. This Court has jurisdiction over the subject matter pursuant to 28 U.S.C. §§ 1331, 1345, and 1355 and Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477. This Court has personal jurisdiction over FHR, which does business in the State of Texas and in this judicial district.

5. Venue is proper in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b) and 28 U.S.C. §§ 1391(b) and (c) and 1395(a) because the alleged violations in this Complaint occurred and are occurring at the Facility, which is located in this District. FHR consents to venue in this District.

### **NOTICE**

6. Notice of the commencement of this action was provided to FHR at least thirty (30) days prior to the filing of this Complaint pursuant to Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1). Notice of the commencement of this action was provided to the State of Texas at least thirty (30) days prior to the filing of this Complaint pursuant to Sections 113(a)(1) and 113(b) of the CAA, 42 U.S.C. §§ 7413(a)(1) and (b).

### **AUTHORITY**

7. The United States Department of Justice has authority to bring this action on behalf of EPA under, *inter alia*, 28 U.S.C. §§ 516 and 519 and under Section 305(a) of the CAA, 42 U.S.C. § 7605(a).

**DEFENDANT**

8. Defendant Flint Hills Resources Port Arthur, LLC is a limited liability corporation organized under the laws of the State of Delaware and authorized to do business in the State of Texas.

9. At all times pertinent to this suit, FHR has been the “owner or operator” of the Facility, as that term is defined in Sections 111(a)(5) and 112(a)(9) of the CAA, 42 U.S.C. §§ 7411(a), 7412(a)(9).

10. FHR is a “person” within the meaning of Sections 113(b) and 302(e) of the CAA, 42 U.S.C. §§ 7413(b) and 7602(e), and applicable federal and state regulations promulgated pursuant to the CAA.

**CLEAN AIR ACT STATUTORY AND REGULATORY BACKGROUND**

11. The Clean Air Act establishes a regulatory scheme designed to protect and enhance the quality of the nation’s air so as to promote the public health and welfare and the productive capacity of its population. 42 U.S.C. § 7401(b)(1).

**I. STATUTORY AND REGULATORY BACKGROUND FOR FLARING CLAIMS**

**A. NATIONAL AMBIENT AIR QUALITY STANDARDS**

**1. General**

12. Section 108(a) of the CAA, 42 U.S.C. § 7408(a), requires EPA to list, and issue air quality criteria for, each air pollutant, the emissions of which may endanger public health or welfare and the presence of which results from numerous or diverse mobile or stationary sources.

13. Section 109(a) of the CAA, 42 U.S.C. § 7409, requires EPA to promulgate regulations establishing primary and secondary national ambient air quality standards (“NAAQS”) for those air pollutants for which air quality criteria have been issued pursuant to

Section 108 of the CAA. Under Section 109(b) of the CAA, 42 U.S.C. § 7409(b), the primary NAAQS are to be adequate to protect the public health with an adequate margin of safety, and the secondary NAAQS are to be adequate to protect the public welfare from any known or anticipated adverse effects associated with the presence of the air pollutant in the ambient air.

14. Pursuant to Sections 108 and 109 of the CAA, 42 U.S.C. §§ 7408 and 7409, EPA has listed and issued air quality criteria and NAAQS for, *inter alia*, carbon monoxide and ozone. The NAAQS for these pollutants are set forth in 40 C.F.R. Part 50.

15. Pursuant to Section 107(d) of the CAA, 42 U.S.C. § 7407(d), each state is required to designate those areas within its boundaries where the air quality is better or worse than the NAAQS for each criteria pollutant, or where the air quality cannot be classified due to insufficient data. An area that meets the NAAQS for a particular pollutant is deemed an “attainment” area. An area that does not meet the NAAQS for a particular pollutant is deemed a “non-attainment” area. An area that cannot be classified due to insufficient data is deemed “unclassifiable.” Air quality designations for states are approved by EPA and can be found at 40 C.F.R. Part 81.

## **2. State Implementation Plans**

16. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a plan that provides for the attainment and maintenance of the NAAQS in each air quality control region within each state. This plan is known as a State Implementation Plan (“SIP”).

17. Pursuant to Section 110 of the CAA, 42 U.S.C. § 7410, states adopt and submit to EPA for approval various rules for the attainment and maintenance of the NAAQS. After such provisions are approved by EPA, these provisions constitute a state’s “applicable implementation

plan,” within the meaning of Sections 113(b) and 302(q) of the CAA, 42 U.S.C. §§ 7413(b) and 7602(q), and are considered the State Implementation Plan (“SIP”). These SIPs are enforceable by the respective states in which they are adopted and, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), by the United States.

18. Of relevance to this Complaint, Section 110(a)(2)(C) of the CAA, 42 U.S.C. § 7410(a)(2)(C), requires each State Implementation Plan to include, *inter alia*, “regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter [Subchapter I of the CAA].”

### **3. Prevention of Significant Deterioration (“PSD”) Requirements**

#### **a. PSD Program in General**

19. Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470–7492, sets forth requirements for the prevention of significant deterioration of air quality in those areas designated as either attainment or unclassifiable for purposes of complying with the NAAQS. These requirements are designed to protect public health and welfare, to assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and to assure that any decision to permit increased air pollution is made only after careful evaluation of all the consequences of such a decision and after public participation in the decision making process. 42 U.S.C. § 7470. These provisions are referred to herein as the “PSD program.”

20. The core of the PSD program is that “[n]o major emitting facility . . . may be constructed in any [attainment or unclassifiable] area” unless various requirements are met. 42 U.S.C. § 7475(a). These requirements include obtaining a PSD permit with emission

limitations that conform to the CAA, demonstrating that emissions will not contribute to a NAAQS violation, and applying “best available control technology” to control emissions. *Id.*

21. Section 169(1) of the CAA, 42 U.S.C. § 7479(1), designates chemical process plants which emit or have the potential to emit one hundred tons per year or more of any pollutant to be a “major emitting facility.”

22. EPA promulgated regulations to implement the PSD program. These regulations are found at 40 C.F.R. § 52.21 and are referred to as the “PSD regulations.”

**b. PSD Program in Texas**

23. In addition to the requirement found in Section 110(a)(2)(c) of the CAA, 42 U.S.C. § 7410(a)(2)(C), Section 161 of the CAA, 42 U.S.C. § 7471, also requires that each State Implementation Plan contain a PSD program. A state may comply with Section 161 by having EPA delegate authority to enforce the federal PSD regulations set forth at 40 C.F.R. § 52.21, or by having its own PSD regulations approved by EPA as part of its SIP. For an “approved” program, the state requirements must be at least as stringent as the requirements set forth at 40 C.F.R. § 51.166.

24. Texas has an approved PSD program. 30 Tex. Admin. Code §§ 116.160–116.163 (approved at 62 Fed. Reg. 44,087, Aug. 19, 1997). Texas is authorized to issue and enforce PSD permits. In all respects relevant to this Complaint, the PSD regulations of Texas that are applicable to this action closely mirror the federal PSD regulations codified at 40 C.F.R. § 52.21.

**c. Requirements of the Applicable PSD Regulations**

25. Under the PSD regulations relevant to the allegations in this Complaint, “[n]o new major stationary source or major modification to which the requirements of paragraphs (j) through (r)(5) of this section [40 C.F.R. § 52.21] apply shall begin actual construction without a

permit that states that the major stationary source or major modification will meet those requirements.” 40 C.F.R. § 52.21(a)(2)(iii). With certain exceptions not applicable here, the requirements of paragraphs (j) through (r)(5) “apply to the construction of any new major stationary source or the major modification of any existing major stationary source.” 50 C.F.R. § 52.21(a)(2)(ii).

26. “Major modification” is defined as “any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase (as defined in paragraph (b)(40) of this section) of a regulated NSR pollutant (as defined in paragraph (b)(50) of this section) and a significant net emissions increase of that pollutant from the major stationary source.” 40 C.F.R. § 52.21(b)(2)(i).

27. “Significant emissions increase” means “for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph (b)(23) of this section) for that pollutant.” 40 C.F.R. § 52.21(b)(40).

28. “Regulated NSR Pollutant” means, *inter alia*, volatile organic compounds (“VOCs”) and carbon monoxide (“CO”). 40 C.F.R. § 52.21(b)(50).

29. “Significant” means the following amounts for the following pollutants:

VOC	40 TPY
CO	100 TPY

40 C.F.R. § 52.21(b)(23).

30. “Net emissions increase” means “with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero: (a) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph (a)(2)(iv) of this section; and (b) Any other increases and decreases in actual emissions at the major stationary source that are



contemporaneous with the particular change and are otherwise creditable.” 40 C.F.R. § 52.21(b)(3)(i).

31. If a new major stationary source or major modification triggers the requirements of the PSD Program, the owner and/or operator, *inter alia*, must install and operate the best available control technology (“BACT”) (as that term is defined at 42 U.S.C. § 7479(3) and 40 C.F.R. § 52.21(b)(12)) at the facility for each pollutant that will have a significant net emissions increase, conduct air quality modeling, and analyze and demonstrate that the construction or modification, taken together with other increases or decreases of air emissions, will not violate applicable air quality standards. 42 U.S.C. § 7475(a); 40 C.F.R. §§ 52.21(j)–(r)(5).

#### **4. Nonattainment New Source Review (“NSR”) Requirements**

##### **a. Nonattainment New Source Review Program in General**

32. Part D of Subchapter I of the CAA, 42 U.S.C. §§ 7501-7515, sets forth provisions relating to what are commonly referred to as “New Source Review” requirements applicable to nonattainment areas (“Nonattainment NSR”). The Nonattainment NSR program is intended, *inter alia*, to reduce emissions of air pollutants in areas that have not attained the NAAQS.

33. Part D directs states to include in their SIPs requirements to provide for reasonable progress towards attainment of the NAAQS in nonattainment areas. 42 U.S.C. § 7502(c)(2).

34. Part D at Section 172(c)(5) of the CAA, 42 U.S.C. § 7502(c)(5), describes the core of the Nonattainment NSR Program. Under Section 172(c)(5), all state SIPs must require permits for the construction and operation of new or modified major stationary sources anywhere

in a nonattainment area within the state. These Nonattainment NSR permits must be issued in accordance with Section 173 of the CAA, 42 U.S.C. § 7503.

35. EPA has promulgated regulations that prescribe the elements that all state SIPs must include in their Nonattainment NSR permit programs. 40 C.F.R. § 51.165. EPA also has issued an “Interpretative Ruling” that clarifies the requirements necessary for the approval of any permit in a nonattainment area. 40 C.F.R. Part 51, Appendix S, Part IV.

**b. Nonattainment NSR Program in Texas**

36. A state may comply with Sections 172 and 173 of the CAA by having its Nonattainment NSR regulations approved by EPA as part of its SIP. These provisions must be at least as stringent as those set forth at 40 C.F.R. § 51.165 and must comply with 40 C.F.R. Part 51, Appendix S, Part IV.

37. Texas has an approved Nonattainment NSR permit program. 30 Tex. Admin. Code §§ 116.150–116.151 (approved at 65 Fed. Reg. 43,986, July 17, 2000). Texas is authorized to issue and enforce Nonattainment NSR permits. In all respects relevant to this Complaint, the Nonattainment NSR permit programs of Texas that are applicable to this action closely mirror the federal regulations codified at 40 C.F.R. § 51.165 and 40 C.F.R. Part 51, Subpart S, Part IV.

**c. Requirements of Applicable Nonattainment NSR Programs**

38. Under the Nonattainment NSR requirements relevant to the allegations in this Complaint, no new major stationary source or major modification may be issued a permit to construct unless certain requirements are met. 40 C.F.R. Part 51, Appendix S, Section IV.A.

39. “Major stationary source” includes, *inter alia*, any stationary source that has the potential to emit 100 TPY or more of any regulated NSR pollutant. 40 C.F.R.

§ 51.165(a)(1)(iv)(A).

40. For purposes of this Complaint, “major modification” and the following terms used within that definition—“significant emissions increase,” “significant,” and “net emissions increase”—have the same meanings as those set forth in Paragraphs 26–27 and 29–30. 40 C.F.R. §§ 51.165(a)(1)(v) (definition of “major modification”); 51.165(a)(1)(xxvii) (definition of “significant emissions increase”); 51.165(a)(1)(x) (definition of “significant”); and 51.165(a)(1)(vi) (definition of “net emissions increase”).

41. If a new major stationary source or major modification triggers the requirements of the Nonattainment NSR program, the owner and/or operator must obtain a Nonattainment NSR permit that among other things: (a) secures federally enforceable emission offsets that are at least as great as the new or modified source’s emissions; (b) installs and operates the lowest achievable emission rate (“LAER”) as defined in Section 171(3) of the CAA, 42 U.S.C. § 7501(3); and (c) analyzes alternative sites, sizes, production processes, and environmental control techniques for the proposed source and demonstrate that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification. 42 U.S.C. §§ 7503(a)–(c); 40 C.F.R. Part 51, Appendix S, Part IV, Conditions 1–4.

## **5. Minor New Source Review (“Minor NSR”) Requirements**

### **a. Minor NSR Program in General**

42. EPA has promulgated regulations that prescribe the elements that all state SIPs must include in the review of new sources and modifications, including modifications that do not

trigger the requirements of the PSD or Nonattainment NSR programs. 40 C.F.R. §§ 51.160–51.164.

43. Each SIP must set forth legally enforceable procedures that enable states to determine whether construction or modification will result in: “(1) A violation of applicable portions of the control strategy [for the state]; or (2) Interference with attainment or maintenance of a national standard in the state in which the proposed source (or modification) is located or in a neighboring state.” 40 C.F.R. § 51.160(a).

44. The procedures in the SIP must include, *inter alia*, the means by which the state will prevent construction or modification if: “(1) It will result in a violation of applicable portions of the control strategy; or (2) It will interfere with the attainment or maintenance of a national standard.” 40 C.F.R. § 51.160(b). The procedures must also provide for, *inter alia*, the submission by owners of information regarding the nature and amount of emissions to be emitted and the location, design, construction, and operation of the facility, building, structure, or installation as may be necessary to permit the state to determine whether there will be a violation of the state’s control strategy or an interference with a national standard. 40 C.F.R. § 51.160(c).

45. Each state’s SIP, therefore, must include permitting requirements for not just new “major stationary sources” and “major modifications”—which fall under PSD and Nonattainment NSR regulations—but also for any construction or modification of a stationary source. These SIP provisions generally are referred to as Minor New Source Review (“Minor NSR”) programs.

**b. Minor NSR Program in Texas**

46. Texas has an approved Minor NSR permit program. 30 Tex. Admin. Code 116, Subpart B (approved at 60 Fed. Reg. 49,788, Sept. 27, 1995). Texas is authorized to issue and enforce Minor NSR permits.

47. In general, under the Texas Minor NSR regulations relevant to the allegations in this Complaint, a source must obtain a permit to construct (install) any new or modified source. *See* 30 Tex. Admin. Code §116.110 (approved 68 Fed. Reg. 64,543, November 14, 2003).

48. Except where the requirements of the PSD and/or Nonattainment NSR programs apply, or unless an exemption under the Texas Minor NSR rules applies, it is unlawful to operate a new or modified source without a Minor NSR permit. *See* 30 Tex. Admin. Code §116.110. (approved 68 Fed. Reg. 64,543, November 14, 2003).

**B. NEW SOURCE PERFORMANCE STANDARDS**

**1. General**

49. Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), requires EPA to publish and periodically revise a list of categories of stationary sources including those categories that, in EPA's judgment, cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.

50. Once a category is included on the list, Section 111(b)(1)(B) of the CAA, 42 U.S.C. § 7411(b)(1)(B), requires EPA to promulgate a federal standard of performance for new sources within the category, also known as a New Source Performance Standard ("NSPS"). Section 111(e) of the CAA, 42 U.S.C. § 7411(e), prohibits an owner or operator of a new source from operating that source in violation of an NSPS after the effective date of the NSPS applicable to such source.

51. “New source” is defined as any stationary source, the construction or modification of which is commenced after the publication of the NSPS regulations or proposed NSPS regulations applicable to such sources. 42 U.S.C. § 7411(a)(2). “Stationary source” is defined as a building, structure, facility, or installation which emits or may emit any air pollutant. 42 U.S.C. § 7411(a)(3).

52. The New Source Performance Standards are located in Part 60 of Title 40 of the Code of Federal Regulations.

**2. Part 60, Subpart A: General**

53. Pursuant to Section 111(b)(1)(B) of the CAA, 42 U.S.C. § 7411(b)(1)(B), EPA promulgated regulations that contain general provisions applicable to all NSPS sources. 40 C.F.R. Part 60, Subpart A, §§ 60.1- 60.19 (“Subpart A”).

54. Under Subpart A, the provisions of 40 C.F.R. Part 60 “apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the publication [in Part 60] of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.” 40 C.F.R. § 60.1.

55. “Affected facility” is defined as “any apparatus to which a standard is applicable.” 40 C.F.R. § 60.2.

**3. Part 60, Subpart A: 40 C.F.R. § 60.11(d)**

56. Within Subpart A, EPA promulgated a regulation that applies at all times to all affected facilities, including associated air pollution control equipment. Specifically, at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution

control equipment in a manner consistent with good air pollution control practice for minimizing emissions. 40 C.F.R. § 60.11(d).

**4. Part 60, Subpart A: 40 C.F.R. § 60.18 (Requirements related to Flares Used as Control Devices)**

57. Within Subpart A, EPA promulgated specific regulations that apply whenever flares are used as control devices. 40 C.F.R. §§ 60.18(b)–(f).

58. Of relevance to this Complaint are the following requirements: flares shall be designed and operated with no visible emissions, 40 C.F.R. § 60.18(c)(1); flares shall be operated with a flame present at all times, 40 C.F.R. § 60.18(c)(2); for steam-assisted flares, the net heating value of the gas being combusted must be 300 British Thermal Units (“BTU”) per standard cubic foot (“scf”) or greater, 40 C.F.R. § 60.18(c)(3)(ii); for steam-assisted flares, certain exit velocity requirements must be met, 40 C.F.R. § 60.18(c)(4); for all flares, the owner or operator must monitor the flare to ensure that it is operated and maintained in conformance with its design, 40 C.F.R. § 60.18(d); and a flare must be operated at all times when emissions are vented to it. 40 C.F.R. § 60.18(e).

**5. Specific NSPS Standards: Part 60, Subparts VV and VVa**

59. Pursuant to Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), EPA has identified, *inter alia*, the following as categories of stationary sources that cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare and EPA has promulgated regulations in the following Subparts of Part 60 of Title 40 of the Code of Federal Regulations to regulate those categories:

CATEGORY	REGULATION (40 C.F.R. Part 60)
Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (applicable between Jan. 5, 1981, and Nov. 7, 2006)	Subpart VV 40 C.F.R. §§ 60.480–60.489
Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (applicable after Nov. 7, 2006)	Subpart VVa 40 C.F.R. §§ 60.480a–60.489a

60. Of relevance to this Complaint, the affected facilities that Subparts VV and VVa apply to are all “equipment” within a process unit at a synthetic organic chemicals manufacturing facility. 40 C.F.R. §§ 60.480(a)(2), 60.480a(a)(2). “Equipment” means each pump, compressor, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service. 40 C.F.R. §§ 60.481, 60.481a.

61. Under Subparts VV and VVa, each owner or operator who uses a flare as a control device to comply with the requirements of Subparts VV and VVa must also comply with the requirements of 40 C.F.R. § 60.18. 40 C.F.R. §§ 60.482-10(d); 60.482-10a(d).

62. Under Subparts VV and VVa, each owner or operator of any control device used to comply with the requirements of Subparts VV and VVa must monitor the control device to ensure that it is operated and maintained in conformance with its design. 40 C.F.R. §§ 60.482-10(e); 60.482-10a(e).

**C. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

**1. General: Section 112 prior to the 1990 CAA Amendments**

63. Section 112 of the Clean Air Act sets forth a national program for the control of hazardous air pollutants (“HAPs”). 42 U.S.C. § 7412. As originally promulgated in the Clean Air Act Amendments of 1970, Section 112 directed EPA to publish a list of HAPs. A HAP was



defined as “an air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.” 42 U.S.C. § 1857c-7 (1971). At that time, Congress directed EPA to establish HAP standards that provided “an ample margin of safety to protect the public health from such hazardous air pollutant.” *Id.*

64. Between 1970 and 1990, EPA listed eight substances as hazardous air pollutants and promulgated emission standards for seven of them. H.R. Rep. No. 101-490, 101<sup>st</sup> Cong., 2d Sess., pt 1 at 151 (1990).

## **2. Part 61, Subpart A: General**

65. Pursuant to Section 112 of the CAA, 42 U.S.C. § 7412, as it existed prior to the 1990 Amendments, EPA promulgated regulations that contain general provisions applicable to all sources that are subject to the NESHAPs found in Part 61 of Title 40 of the Code of Federal Regulations. 40 C.F.R. Part 61, Subpart A, §§ 61.01–61.19 (“Subpart A”).

66. Under Subpart A, the provisions of 40 C.F.R. Part 61 “apply to the owner or operator of any stationary source for which a standard is prescribed under this part.” 40 C.F.R. § 61.1(c).

## **3. Part 61, Subpart A: 40 C.F.R. § 61.12(c)**

67. Within Subpart A of Part 61, EPA promulgated a requirement that corresponds to the “good air pollution control practices” requirement of Subpart A of the NSPS (*i.e.*, 40 C.F.R. § 60.11(d)). Specifically, “the owner and operator of each stationary source shall maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions.” 40 C.F.R. § 61.12(c).

**4. Part 61 Subpart FF: 40 C.F.R. §§ 61.340–61.359**

68. Pursuant to Section 112 as it existed prior to the CAA Amendments of 1990, EPA listed benzene as a hazardous air pollutant and promulgated standards related to the control of benzene in waste operations. 55 Fed. Reg. 8292 (March 7, 1990). Thereafter, in 1993, EPA finalized the regulations, 58 Fed. Reg. 3072 (January 7, 1993), and published them at 40 C.F.R. Part 61, Subpart FF. 40 C.F.R. §§ 61.340-61.359. These regulations commonly are referred to as the “Benzene Waste Operations NESHAP” or “Subpart FF.”

69. Subpart FF applies, *inter alia*, to chemical manufacturing plants. 40 C.F.R. § 61.340(a).

70. Under Subpart FF, a closed vent system is defined as “a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission source to a control device.” 40 C.F.R. § 61.341.

71. Under Subpart FF, a “control device” is defined as an enclosed combustion device, vapor recovery system, or flare. 40 C.F.R. § 61.341.

72. Flares used as control devices for closed vent systems subject to Subpart FF must comply with the requirements of 40 C.F.R. § 60.18. 40 C.F.R. § 61.349(a)(2)(iii).

73. Flares used as control devices for closed vent systems subject to Subpart FF must also comply with the General Provisions of Part 61, including the requirement that the air pollution control equipment be maintained and operated “in a manner consistent with good air pollution control practice for minimizing emissions.” 40 C.F.R. § 61.12.

## 5. General: Section 112 after the 1990 CAA Amendments

74. Through the Clean Air Act Amendments of 1990, Congress replaced the then-existing Section 112 and established a new program for the control of HAPs. H.R. Rep. No. 101-490, 101<sup>st</sup> Cong., 2d Sess., pt 1 at 324 (1990). The regulations then in existence under the original Section 112 (such as the Benzene Waste Operations NESHAP at 40 C.F.R. Part 61, Subpart FF described above) remained in full force and effect.

75. With the 1990 amendments, Congress itself established a list of 188 hazardous air pollutants believed to cause adverse health or environmental effects. 42 U.S.C. § 7412(b)(1).

76. Congress directed EPA to publish a list of all categories and subcategories of, *inter alia*, major sources of HAPs. 42 U.S.C. § 7412(c).

77. “Major source” was and is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. 42 U.S.C. § 7412(a)(1).

78. “Stationary source” was and is defined as any building, structure, facility, or installation which emits or may emit any air pollutant. 42 U.S.C. § 7412(a)(3) (stating that “stationary source” under Section 112(a) has the same meaning as that term has under Section 111(a) of the CAA, 42 U.S.C. § 7411(a)(3)).

79. A “category” of sources is a group of sources having some common features suggesting that they should be regulated in the same way and on the same schedule. 57 Fed. Reg. 31576, 31578 (July 16, 1992). A single stationary source can be comprised of multiple source categories. *Id.*

80. Congress directed EPA to promulgate regulations establishing emission standards for each category or subcategory of, *inter alia*, major sources of HAPs. 42 U.S.C. § 7412(d)(1). These emission standards must require the maximum degree of reduction in emissions of HAPs that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for the new or existing sources in the category or subcategory to which the emission standard applies. 42 U.S.C. § 7412(d)(2).

81. To the extent that it is not feasible to prescribe or enforce an emission standard for the control of a HAP, Congress authorized EPA to promulgate “design, equipment, work practice, or operational” standards, which are to be treated as emission standards. 42 U.S.C. § 7412(h).

82. The emission standards promulgated under Section 112 of the 1990 Amendments of the CAA, 42 U.S.C. § 7412, are known as the National Emission Standards for Hazardous Air Pollutants (“NESHAPs”) for Source Categories or “MACT” (“maximum achievable control technology”) standards. These emission standards are found in Part 63 of Title 40 of the Code of Federal Regulations.

83. After the effective date of any emission standard, limitation, or regulation promulgated pursuant to Section 112 of the CAA, no person may operate a source in violation of such standard, limitation, or regulation. 42 U.S.C. § 7412(i)(3).

**6. Part 63, Subpart A: General**

84. Pursuant to Section 112 of the CAA, 42 U.S.C. § 7412, as it existed after the 1990 CAA Amendments, EPA promulgated regulations that contain general provisions applicable to

sources that are subject to the MACT standards of Part 63 of Title 40 of the Code of Federal Regulations. 40 C.F.R. Part 63, Subpart A, §§ 63.1–63.16 (“Subpart A”).

85. Under Subpart A, the provisions of 40 C.F.R. Part 63 “apply to the owner or operator of any stationary source that (i) emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and (ii) is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.” 40 C.F.R. § 63.1(b).

86. Under Subpart A, each relevant standard in Part 63 must identify explicitly whether each provision in Subpart A is or is not included in such relevant standard. 40 C.F.R. § 63.1(a)(4)(i).

**7. Part 63, Subpart A: 40 C.F.R. § 63.11(b) (Requirements related to Flares Used as Control Devices)**

87. Within Subpart A of Part 63, EPA promulgated specific regulations that apply whenever flares are used as control devices. 40 C.F.R. § 63.11(b).

88. Of relevance to this Complaint are the following requirements: flares shall be designed and operated with no visible emissions, 40 C.F.R. § 63.11(b)(4); flares shall be operated with a flame present at all times, 40 C.F.R. § 63.11(b)(5); for steam-assisted flares, the net heating value of the gas being combusted must be 300 British Thermal Units (“BTU”) per standard cubic foot (“scf”) or greater, 40 C.F.R. § 63.11(b)(6)(ii); for steam-assisted flares, certain exit velocity requirements must be met, 40 C.F.R. § 63.11(b)(7); the owner or operator must monitor the flare to ensure that it is operated and maintained in conformance with its design; 40 C.F.R. § 63.11(b)(1); and a flare must be operated at all times when emissions are vented to it. 40 C.F.R. § 63.11(b)(3).

**8. Specific MACT Standards: Part 63, Subparts F, G, H, and I (the HON)**

89. Pursuant to Section 112(c) of the CAA, 42 U.S.C. § 7412(c), EPA identified the synthetic organic chemical manufacturing industry (“SOCMI”) as a source category of HAPs. 57 Fed. Reg. 31576, 31591 (Table 1) (July 16, 1992).

90. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), EPA promulgated the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry. 59 Fed. Reg. 19402 (April 22, 1994). These standards commonly are referred to as the “Hazardous Organic NESHAP” or the “HON.”

91. The HON consists of four subparts in Part 63 of Title 40 of the Code of Federal Regulations: Subparts F, G, H, and I. *Id.* at 19405. Of relevance to the flaring allegations in this Complaint are Subparts F and G.

92. Subpart F provides the applicability criteria for SOCMI sources, requires that owners and operators of SOCMI sources comply with Subparts G and H, and specifies general recordkeeping and reporting requirements. *Id.* Subpart G generally sets forth regulations governing process vents, storage vessels, transfer racks, and wastewater streams at SOCMI sources. *Id.*

93. Under Subpart F, the HON applies to chemical manufacturing process units that: (1) manufacture as a primary product one or more of the chemicals listed in Table 1 of Subpart F; (2) use as a reactant or manufacture as a product, or co-product, one or more of the organic HAPs listed in Table 2 of Subpart F; and (3) are located at a plant site that is a major source as defined in Section 112(a) of the CAA. 40 C.F.R. § 63.100(b).

94. A “chemical manufacturing process unit” is defined, *inter alia*, as the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product. *Id.* § 63.101(b).

95. Table 1 of Subpart F lists approximately 385 chemicals which constitute SOCM products that may be produced by a HAP-emitting process. 40 C.F.R. Subpart F, Table 1; 59 Fed. Reg. 19402, 19405 (1994).

96. Table 2 of Subpart F lists approximately 130 organic HAPs. 40 C.F.R. Subpart F, Table 2.

97. Owners and operators of sources that are subject to Subpart F are required to comply with Subpart G. 40 C.F.R. § 63.102(a).

98. Subpart G applies, *inter alia*, to all process vents within a source that is itself subject to Subpart F. *Id.* § 63.110.

99. Under Subpart G, there are two separately defined types of process vents. A “Group 1” process vent is a process vent with a flow rate greater than or equal to 0.005 standard cubic meters per minute, an organic HAP concentration greater than or equal to 50 parts per million by volume (“ppmv”), and a Total Resource Effectiveness (“TRE”) index value of less than or equal to 1.0. 40 C.F.R. § 63.111(b). (The TRE index value is a measure of the supplemental total resource requirement per unit reduction of organic HAP associated with a process vent stream. The TRE index value is a cost-effectiveness index associated with an individual process vent stream and is dependent on the process vent flow rate, net heating value, total organic compounds (TOC) emission rate, and HAP emission rate. 40 C.F.R. § 63.115.) “Group 2” process vents are vents that are not Group 1 process vents. *Id.* Facilities have the option of leaving process vents “ungrouped” so long as such ungrouped vents comply with the

HON's process vent control requirements set forth at Section 63.113(a). *See* 40 C.F.R. § 63.113(h).

100. Gas from Group 1 or ungrouped process vents must either: (1) be controlled by a flare; (2) have its total organic hazardous air pollutants reduced by 98% or controlled to 20 ppmv, whichever is less stringent; or (3) achieve and maintain a TRE index value greater than 1.0. 40 C.F.R. § 63.113(a).

101. Under Subpart G, when gas from process vents are controlled by a flare, the flare must comply with the general control requirements for flares found at 40 C.F.R. § 63.11(b) of Subpart A. 40 C.F.R. § 63.113(a)(1)(i). The requirements of 40 C.F.R. § 63.11(b) are found in Paragraph 88.

#### **9. Specific MACT Standards: Part 63, Subparts SS, UU, and YY**

102. Pursuant to Section 112(c) of the CAA, 42 U.S.C. § 7412(c), EPA identified ethylene production as a source category of HAPs. 67 Fed. Reg. 46258 (July 12, 2002).

103. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), EPA promulgated the National Emission Standards for Hazardous Air Pollutants from ethylene production. 40 C.F.R. § 63.1103(e) ("Ethylene MACT"). These standards were promulgated as part of the Generic MACT Standards at Subpart YY of Part 63 of Title 40 of the Code of Federal Regulations. 67 Fed. Reg. 46258 (July 12, 2002).

104. Of relevance to this Complaint, the affected sources that Subpart YY applies to are an "ethylene process vent" and "equipment." 40 C.F.R. §§ 63.1103(e)(B), (D).

105. Under the Ethylene MACT, owners and operators of an ethylene process vent must reduce emissions of organic HAP by 98 weight-percent; or reduce organic HAP or Total Organic Compounds ("TOCs") to a concentration of 20 ppmv; which is less stringent, by venting



emissions through a closed vent system to any combination of control devices and meeting the requirements specified in 40 C.F.R. §§ 63.982(b) and (c)(2). 40 C.F.R. § 63.1103(e)(3) and Table 7 at (d). 40 C.F.R. § 63.982(c)(2) is not relevant to the allegations in this Complaint.

106. 40 C.F.R. § 63.982(b) is found within Subpart SS of Part 63 of Title 40 of the Code of Federal Regulations. Subpart SS provides National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process. The provisions of Subpart SS apply only when another Subpart (such as Subpart YY) references them. 40 C.F.R. § 63.980.

107. Under 40 C.F.R. § 63.982(b), owners and operators that use a flare as a control device on a closed vent system must meet the requirements of 40 C.F.R. § 63.987.

108. Under 40 C.F.R. § 63.987, flares must meet the requirements of 40 C.F.R. § 63.11(b). *See supra* Para. 88.

109. Under the Ethylene MACT, owners and operators of “equipment” must comply with the requirements of Subpart UU of Part 63. 40 C.F.R. § 63.1103(3) and Table 7 at (f).

110. Subpart UU is the National Emissions Standards for Equipment Leaks—Control Level 2 Standards. Under Subpart UU, owners and operators that used closed vent systems and flares to comply with Subpart UU must comply with Subpart SS. 40 C.F.R. § 63.1034(b)(2) and (2)(iii).

111. Under Subpart SS, flares must meet the requirements of 40 C.F.R. § 63.11(b). 40 C.F.R. § 63.987.

#### **D. TITLE V**

112. Title V of the Clean Air Act, 42 U.S.C. §§ 7661–7661f, establishes an operating permit program for certain sources, including major sources, sources subject to Sections 111

(NSPS program) or 112 (NESHAP/MACT program) of the CAA, or any source required to have a PSD or Nonattainment NSR Permit. 42 U.S.C. § 7661a(a). The purpose of Title V is to ensure that all “applicable requirements” that a source is subject to under the CAA, including SIP requirements, are collected in one permit. 42 U.S.C. § 7661c(a).

113. Pursuant to Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), EPA promulgated regulations implementing the requirements of Title V and establishing the minimum elements of a Title V permit program to be administered by any state or local air pollution control agency. 57 Fed. Reg. 32250 (July 21, 1992). These regulations are codified at 40 C.F.R. Part 70.

114. Texas has an EPA-approved Title V program. 30 Tex. Admin. Code, Chap. 122 (approved at 66 Fed. Reg. 63,318, Dec. 6, 2001). Texas is authorized to issue and enforce Title V permits. In all respects relevant to this Complaint, the Title V regulations of Texas closely mirror the federal Title V regulations codified at 40 C.F.R. Part 70.

115. Section 502(a) of the CAA (42 U.S.C. § 7661a(a)) and the Title V permit program and regulations of Texas provide that, after the effective date of the state Title V permit program, no person may violate any requirement of a Title V permit.

116. Section 502(a) of the CAA (42 U.S.C. § 7661a(a)), the implementing regulations at 40 C.F.R. §§ 70.1(b) and 70.7(b), and the Title V permit program and regulations of Texas provide that, after the effective date of the state Title V permit program, no source subject to Title V may operate except in compliance with a Title V permit.

117. Section 503(c) of the CAA (42 U.S.C. § 7661b(c)), the implementing regulations at 40 C.F.R. § 70.5(a), and the Title V permit program and regulations of Texas provide that each owner and operator of a source subject to Title V permitting requirements must submit a permit application. Among other things, the permit application must contain: (i) information sufficient

to determine all applicable air pollution control requirements (including any requirement to meet the applicable control technology requirements under the PSD and Nonattainment NSR programs and to comply with the applicable NSPS and/or NESHAP/MACT standards), 40 C.F.R. § 70.5(c)(4); (ii) information that may be necessary to determine the applicability of other applicable requirements of the CAA, 40 C.F.R. § 70.5(c)(5); (iii) a compliance plan for all applicable requirements for which the source is not in compliance, 42 U.S.C. § 7661b(b), 40 C.F.R. § 70.5(c)(8); and (iv) a certification of compliance with all applicable requirements by a responsible official. 40 C.F.R. § 70.5(c)(9).

118. Under 40 C.F.R. § 70.5(b) and the Title V permit program and regulations of Texas, any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

119. Section 504(a) of the CAA (42 U.S.C. § 7661c(a)), the implementing regulations at 40 C.F.R. § 70.6(a) and (c), and the Title V permit programs and regulations of Texas requires each Title V permit to include, *inter alia*, enforceable emission limitations and standards, a schedule of compliance, and such other conditions as are necessary to assure compliance with all applicable requirements of the CAA, including the requirements of the applicable SIP.

120. All terms and conditions of a Title V permit are enforceable by EPA. 42 U.S.C. § 7413(b); 40 C.F.R. § 70.6(b).

## **II. STATUTORY AND REGULATORY BACKGROUND FOR LEAK DETECTION AND REPAIR CLAIMS**

121. The New Source Performance Standards described in Part I.B, *supra*, and the National Emission Standards for Hazardous Air Pollutants described in Part I.C, *supra*, include various regulations that set forth work practice standards and testing and recordkeeping

requirements to ensure that any leaks of volatile organic compounds (“VOCs”), including benzene and organic hazardous air pollutants (“organic HAPs”), from equipment are timely detected and repaired. These provisions commonly are called “leak detection and repair” provisions, or “LDAR” provisions for short.

122. For purposes of this Complaint, the applicable LDAR provisions are found at 40 C.F.R. Part 60, Subparts VV and VVa (NSPS); 40 C.F.R. Part 61, Subpart V (pre-1990 NESHAP); and 40 C.F.R. Part 63, Subparts H and UU (post-1990 NESHAP/MACT standards).

123. In general, all of these LDAR regulations define the term “equipment” and require an owner or operator to monitor this equipment by means of a hand-held device capable of detecting VOCs. *See, e.g.*, 40 C.F.R. § 60.485(b) and Appendix 7, Method 21. If VOCs above a certain threshold concentration are detected, the owner or operator must undertake certain steps to repair the leak and remonitor it to ensure it is sealed. *See, e.g.*, 40 C.F.R. § 60.482-2(b), (c).

### **III. ENFORCEMENT OF THE CAA**

124. Sections 113(a)(1) and (a)(3) of the CAA, 42 U.S.C. §§ 7413(a)(1) and (a)(3), authorize EPA to bring a civil action under Section 113(b) if EPA finds that any person is in violation of any requirement or prohibition of a SIP, the PSD and Nonattainment NSR permit programs, a PSD or Nonattainment NSR permit, the NSPS program, the NESHAP/MACT program, the Title V permit program, or a Title V permit.

125. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the Court to enjoin a violation, to require compliance, to assess and recover a civil penalty, and to award any other appropriate relief for each violation.

126. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes civil penalties of up to \$25,000 per day for each violation of the CAA.

127. The Civil Penalties Inflation Act of 1990, 28 U.S.C. § 2461 *et seq.*, as amended by the Debt Collection Improvements Act of 1996, 31 U.S.C. § 3701 *et seq.*, requires EPA to periodically adjust its civil penalties for inflation. On December 31, 1996, February 13, 2004, and December 11, 2008, EPA adopted and revised regulations entitled “Adjustment of Civil Monetary Penalties for Inflation,” 40 C.F.R. Part 19, to upwardly adjust the maximum civil penalty under the CAA. For each violation that occurs between January 31, 1997, and March 15, 2004, inclusive, penalties of up to \$27,500 per day may be assessed; for each violation that occurs between March 16, 2004, and January 12, 2009, inclusive, penalties of up to \$32,500 per day may be assessed; and for each violation that occurs on and after January 13, 2009, penalties of up to \$37,500 per day may be assessed. 60 Fed. Reg. 69,360 (Dec. 31, 1996); 60 Fed. Reg. 7121 (Feb. 12, 2004); 73 Fed. Reg. 75,340 (Dec. 11, 2008).

### **GENERAL ALLEGATIONS**

128. FHR is the “owner or operator,” within the meaning of the CAA, of the Facility.

129. At the Facility, FHR manufactures ethylene and propylene as the primary products. The Facility also produces other chemicals.

130. The Facility is a “major emitting facility,” a “source,” a “stationary source,” a “major stationary source,” and a “major source” within the meaning of the CAA, the New Source Review permit programs and regulations (including the PSD, Nonattainment NSR, and Minor NSR programs), the NSPS program and regulations, the NESHAP/MACT program and regulations, the Title V program and regulations, and the Texas SIP that adopts, incorporates, and/or implements these programs and regulations.

131. The Facility has a Title V permit that has been issued by Texas.

132. The Facility operates three steam-assisted flares (“Flares”). Two are in normal service and are designated as the “LOU Flare” (for “Light Olefins Unit”) and the “AU Flare” (for “Aromatic Unit”). One is a back-up flare to the LOU Flare and is designated as LOU Flare-2.

133. A flare is a combustion device that uses an uncontrolled volume of ambient air to burn gases.

134. A steam-assisted flare is a flare that utilizes steam piped to the flare tip to assist in combustion.

135. The Facility has six process units for purposes of the leak detection and repair programs of the CAA: the Light Olefins Unit (“LOU”); the Gasoline Hydrogenation Unit (“GHU”); the Pyrolysis Hydrogenation Unit (“PHU”); the UDEX Unit; the Cyclohexane Unit (“CYCLO”); and equipment that is outside the physical boundaries of each of these units but that is associated with each of these units, known as the “Outside Battery Limits” or “OSBL” process unit.

136. The LOU is an “ethylene production unit” within the meaning of 40 C.F.R. § 63.1103(e)(2).

137. Equipment within the LOU is subject to the requirements of 40 C.F.R. Part 60, Subpart VV and VVa, and 40 C.F.R. Part 63, Subpart UU.

138. Equipment within the GHU and the PHU is subject to the requirements of 40 C.F.R. Part 63, Subpart UU.

139. Equipment within the UDEX and CYCLO units is subject to the requirements of 40 C.F.R. Part 63, Subpart H.

140. Certain equipment at the Facility is subject to the requirements of 40 C.F.R. Part 61, Subpart V.

141. Equipment within the OSBL unit is subject to the same LDAR requirements that the process unit the equipment is associated with is subject to.

**CLEAN AIR ACT  
CLAIM 1: FLARES  
Violation of PSD, Nonattainment NSR, and Texas SIP Requirements**

**Failure to Apply for, Obtain, and Operate Pursuant to  
PSD and/or Nonattainment NSR Permits**

142. Plaintiff realleges and incorporates by reference Paragraphs 8–10 and 128–134 as if fully set forth herein.

143. Subject to a reasonable opportunity for further investigation or discovery, at various times from 2008 to the present, FHR has commenced construction of a “major modification,” as defined in the CAA and the Texas SIP, at the Facility. The modifications involved physical changes in or changes in the methods of operation of the Flare systems of the Facility, including physical changes in or changes in the methods of operation of the Flare subheaders within process units, Flare headers, Flare stacks, and Flare tips.

144. Subject to a reasonable opportunity for further investigation or discovery, these modifications resulted in significant emissions increases of volatile organic compounds (“VOCs”) and carbon monoxide (“CO”) and a significant net emissions increase of these pollutants from FHR’s Flares.

145. FHR did not apply for, obtain, or operate pursuant to either a PSD or a Nonattainment NSR permit, as applicable, for any of these modifications.

146. By failing to apply for, obtain, and operate pursuant to a PSD permit (for those pollutants for which Port Arthur, Texas, is either in attainment or unclassifiable), FHR failed to:

(i) undergo a proper BACT determination for VOCs and CO for the Flare systems for each Flare in connection with each major modification; (ii) install and operate BACT on the Flare systems of each Flare for the control of VOCs and CO; (iii) demonstrate that the emissions increases from the modifications would not cause or contribute to violations of air quality standards; (iv) provide for review and public comment on the air quality impacts of the modifications; and (v) otherwise comply with the requirements of the PSD program and the SIP of Texas.

147. By failing to apply for, obtain, and operate pursuant to a Nonattainment NSR permit (for those pollutants for which Port Arthur, Texas, is in nonattainment), FHR failed to: (i) undergo a proper LAER determination for VOCs and CO for the Flare systems for each Flare in connection with each major modification; (ii) install and operate LAER on the Flare systems of each Flare for the control of VOCs and CO; (iii) secure emissions reductions (offsets) from existing sources in the same area where the Facility is located such that there would be reasonable progress toward attainment of the applicable NAAQS; and (iv) otherwise comply with the requirements of the Nonattainment NSR program and the Texas SIP.

148. The acts and/or omissions identified in this Claim constitute violations of:

- (a) 42 U.S.C. § 7475;
- (b) 40 C.F.R. §§ 52.21(a)(2)(iii) and 52.21(j)–52.21(r)(5);
- (c) 42 U.S.C. §§ 7502(c)(5), 7503(a)–(c);
- (d) 40 C.F.R. Part 51, Appendix S, Part IV, Conditions 1–4; and
- (e) The federally enforceable Texas SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 148(a)–(d).



**CLEAN AIR ACT**  
**CLAIM 2: FLARES**  
**Violation of Minor NSR Requirements of the Texas SIP**

**Failure to Apply for, Obtain, and Operate Pursuant to**  
**Minor NSR Permits**

149. Plaintiff realleges and incorporates by reference Paragraphs 8–10 and 128–134 as if fully set forth herein.

150. Subject to a reasonable opportunity for further investigation or discovery, at various times from 2008 to the present, FHR has commenced construction of a “modification,” as defined in the Texas SIP, at its Facility. The modifications involved physical changes in or changes in the methods of operation of the Flare systems of the Facility, including physical changes in or changes in the methods of operation of the Flare subheaders within process units, Flare headers, Flare stacks, and Flare tips.

151. Subject to a reasonable opportunity for further investigation or discovery, these modifications resulted in increases in emissions of VOCs and CO that triggered Minor NSR, but these increases were not “significant emissions increases” or “significant net emissions increases” as defined in PSD and Nonattainment NSR programs and regulations.

152. FHR did not apply for, obtain, or operate pursuant to a Minor NSR permit for any of these modifications.

153. FHR’s failure to apply for, obtain, and operate pursuant to a Minor NSR permit for these modifications prevented Texas from determining whether the modifications violated its control strategies or interfered with attainment or maintenance of a national standard in Texas or in a neighboring state.

154. The acts and/or omissions identified in this Claim constitute violations of the Minor NSR program of Texas identified in Paragraphs 46–48 of this Complaint.

**CLEAN AIR ACT**  
**CLAIM 3: FLARES**  
**Violation of Title V and Texas SIP Requirements**  
**As Relate to PSD, Nonattainment NSR, and Minor NSR Requirements**

**Failure to Submit Timely and Complete Title V Permit Applications and/or  
Supplement and Correct Previously Submitted Title V Permit Applications  
to Incorporate PSD, Nonattainment NSR, and/or Minor NSR Requirements;  
Operation without Valid Title V Permits Incorporating  
PSD and/or Nonattainment NSR and/or Minor NSR Requirements**

155. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–134, 143–147, 150–153 as if fully set forth herein.

156. Subject to a reasonable opportunity for further investigation or discovery, as alleged in Claims 1 and 2, FHR undertook activities constituting major modifications and/or non-major modifications at its Facility. For the major modifications, these activities triggered requirements, *inter alia*, to obtain PSD and/or Nonattainment NSR permits establishing emissions limitations that meet BACT and/or LAER at FHR's Flares, to operate in compliance with BACT and/or LAER at the Flares, and to otherwise comply with the requirements of the PSD and/or Nonattainment NSR permit programs. For the non-major modifications, these activities triggered requirements that would have enabled Texas to determine if conditions or limitations on FHR's Flares should have been imposed on the modification and/or subsequent operation.

157. FHR failed to submit a complete and timely application for a Title V operating permit at its Facility that: (i) for the major modifications, included, *inter alia*, enforceable BACT and/or LAER limits at FHR's Flares, identified all applicable requirements, accurately certified compliance with such requirements, and contained a compliance plan for all applicable requirements for which the Facility was not in compliance; and (ii) for the non-major modifications, included, *inter alia*, conditions or limitations that Texas might have considered

imposing on FHR's Flares under the Minor NSR program. In the alternative, FHR failed to supplement and correct previously submitted Title V permit applications in order to: (i) for the major modifications, seek enforceable BACT and/or LAER limits at its Flares, identify all applicable requirements, accurately certify compliance with such requirements, and include a compliance plan for requirements for which the Facility was not in compliance; and (ii) for the non-major modifications, seek conditions or limitations that Texas might have considered imposing on FHR's Flares under the Minor NSR program.

158. FHR continued and continues to operate its Facility without having a valid Title V operating permit that requires compliance with BACT and/or LAER at FHR's Flares or contains a compliance plan for coming into compliance with BACT and/or LAER at FHR's Flares or contains conditions or limitations that Texas might have imposed on FHR's Flares under the Minor NSR program.

159. The acts and/or omissions identified in this Claim constitute violations of:

- (a) Title V of the CAA at 42 U.S.C. §§ 7661a(a), 7661b(c), 7661c(a);
- (b) Title V implementing regulations at 40 C.F.R. §§ 70.1(b), 70.5(a) and (b), 70.6(a) and (c), and 70.7(b); and
- (c) The federally enforceable Texas Title V program to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 159(a) and (b).

**CLEAN AIR ACT  
CLAIM 4: FLARES**

**Violation of Certain NSPS and NESHAP Subpart A Requirements related to Flares,  
Title V Permits that Incorporate these Requirements,  
and Corresponding State SIP Requirements**

**FHR's Flares: Visible Emissions; Operation without a Flame Present;  
Exit Velocity Violations; and Lack of Operation When Emissions are Vented**

160. Plaintiff realleges and incorporates by reference Paragraphs 8–10 and 128–134 as if fully set forth herein.

161. The Facility has “equipment” within the meaning of 40 C.F.R. §§ 60.481 and 60.481a. This equipment is an “affected facility” within the meaning of 40 C.F.R. § 60.2.

162. The equipment is subject to the requirements of 40 C.F.R. Part 60, Subpart VV and VVa.

163. The Facility has one or more “ethylene process vents” within the meaning of 40 C.F.R. § 63.1103(e)(2) (Subpart YY). These ethylene process vents are “affected sources” within the meaning of 40 C.F.R. § 63.2.

164. The ethylene process vents are subject to the requirements of 40 C.F.R. Part 63, Subpart YY, which in turn requires compliance with 40 C.F.R. Part 63, Subpart SS.

165. The equipment and ethylene process vents are subject to the requirements in the Facility’s Title V permit that compels compliance with 40 C.F.R. Part 60, Subpart VV and VVa and 40 C.F.R. Part 63, Subpart YY and SS.

166. Subject to a reasonable opportunity for further investigation or discovery, FHR uses one or more Flares as a control device for compliance with the equipment leak standards found at 40 C.F.R. Part 60, Subparts VV and VVa and/or with the ethylene process vent standards at 40 C.F.R. Part 63, Subparts YY and SS.

167. The Facility is subject to the Benzene Waste Operations NESHAP at 40 C.F.R. Part 61, Subpart FF. The Facility has at least one “control device” within the meaning of 40 C.F.R. § 61.341 (definitions in Subpart FF).

168. This or these control device(s) is (are) subject to the requirements of 40 C.F.R. Part 61, Subpart FF. In addition, this or these control device(s) is (are) subject to the requirements in the Facility’s Title V permit that compels compliance with 40 C.F.R. Part 61, Subpart FF.

169. FHR uses one or more Flares as a control device pursuant to 40 C.F.R. § 61.349(a)(2)(iii) (Subpart FF).

170. FHR has one or more “Group 1 process vents” within the meaning of 40 C.F.R. § 63.111.

171. These Group 1 process vents are subject to the requirements of 40 C.F.R. Part 63, Subpart G. These Group 1 process vents also are subject to the requirements in the Facility’s Title V permit that compels compliance with 40 C.F.R. Part 63, Subpart G.

172. FHR uses one or more Flares as a control device for compliance with the process vents standards found at 40 C.F.R. Part 63, Subpart G. 40 C.F.R. § 63.113(a)(1)(i).

173. Subject to a reasonable opportunity for further investigation or discovery, FHR’s Flares are subject to the requirements of 40 C.F.R. §§ 60.18(b) and 63.11(b).

174. Subject to a reasonable opportunity for further investigation or discovery, at various times from 2008 to the present, at one or more of the Flares at the Facility, FHR did as follows: operated the Flares with visible emissions; operated the Flares at times when no flame was present; failed to comply with maximum exit velocity requirements, and failed to operate the Flares at all times when emissions were vented to them.

175. The acts and omissions identified in this Claim constitute violations of:
- (a) Sections 111 and 112 of the CAA, 42 U.S.C. §§ 7411, 7412;
  - (b) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(c)(1) and 63.11(b)(4) (prohibition on visible emissions in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
  - (c) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(c)(2) and 63.11(b)(5) (flame presence requirement in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
  - (d) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(c)(4) and 63.11(b)(7) (exit velocity requirements for steam-assisted flares in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
  - (e) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(e) and 63.11(b)(3) (requirement to operate during emissions venting in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
  - (f) Section 111's implementing regulations at 40 C.F.R. §§ 60.482-10(d), and 60.482-10a(d) (relevant provisions of NSPS's Subparts VV and VVa), insofar as these provisions relate to flares and require compliance with 40 C.F.R. §§ 60.18(c)(1), (2), (4), and (e);
  - (g) Section 112's implementing regulation at 40 C.F.R. § 61.349(a)(2)(iii) (relevant provision of Subpart FF), insofar as this provision requires compliance with 40 C.F.R. §§ 60.18(c)(1), (2), (4), and (e);
  - (h) Section 112's implementing regulation at 40 C.F.R. §§ 63.113(a)(1)(i) (relevant provision of Subpart G), insofar as this provision requires compliance with 40 C.F.R. §§ 63.11(b)(3), (4), (5) and (7);
  - (i) Section 112's implementing regulations at 40 C.F.R. §§ 63.1103(e)(3) and Table 7 at (d) and (f); 63.982(b); 63.987; and 63.1034(b) and (b)(2)(iii) (relevant provisions of NESHAP/MACT's Subparts YY, SS, and UU), insofar as these provisions relate to flares and require compliance with 40 C.F.R. §§ 63.11(b)(3), (4), (5) and (7);
  - (j) Those provisions of the Facility's Title V Permit that requires compliance with the statutory and regulatory requirements identified in Subparagraphs 175(a)–(i);
  - (k) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a (a) and 40 C.F.R. § 70.7(b); and

- (l) The federally enforceable Texas SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 175(a)–(k).

**CLEAN AIR ACT  
CLAIM 5: FLARES**

**Violation of an NSPS and NESHAP/MACT Subpart A Requirement related to Flares,  
Title V Permits that Incorporate this Requirement,  
and Corresponding State SIP Requirements**

**Combusting Gas in Flares that Has a Net Heating Value of Less than 300 BTU/scf**

176. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–134, and 161–173 as if fully set forth herein.

177. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions from January 2008 to the present, FHR combusted gas in the Facility’s Flares that had a Net Heating Value of less than 300 BTU/scf.

178. The acts and omissions identified in this Claim constitute violations of:

- (a) Sections 111 and 112 of the CAA, 42 U.S.C. §§ 7411, 7412;
- (b) Section 111’s and 112’s implementing regulations at 40 C.F.R. §§ 60.18(c)(3)(ii) and 63.11(b)(6)(ii) (BTU/scf requirement in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
- (c) Section 111’s implementing regulations at 40 C.F.R. §§ 60.482-10(d) and 60.482-10a(d) (relevant provisions of NSPS’s Subparts VV and VVa), insofar as they relate to flares and require compliance with 40 C.F.R. § 60.18(c)(3)(ii);
- (d) Section 112’s implementing regulation at 40 C.F.R. § 61.349(a)(2)(iii) (relevant provision of Subpart FF), insofar as that provision requires compliance with 40 C.F.R. §§ § 60.18(c)(3)(ii);
- (e) Section 112’s implementing regulations at 40 C.F.R. §§ 63.113(a)(1)(i) (relevant provision of Subpart G), insofar as that provision requires compliance with 40 C.F.R. § 63.11(b)(6)(ii);
- (f) Section 112’s implementing regulations at 40 C.F.R. §§ 63.1103(e)(3) and Table 7 at (d) and (f); 63.982(b); 63.987; and 63.1034(b) and (b)(2)(iii) (relevant provisions of NESHAP/MACT’s Subparts YY, SS, and UU), insofar as these

provisions relate to flares and require compliance with 40 C.F.R. §§ 63.11(b)(3), (4), (5) and (7);

- (g) Those provisions of the Facility's Title V Permit that requires compliance with the statutory and regulatory requirements identified in Subparagraphs 178(a)–(f);
- (h) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
- (i) The federally enforceable Texas SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 178(a)–(h).

### **CLEAN AIR ACT**

#### **CLAIM 6: FLARES**

#### **Violation of an NSPS and NESHAP/MACT Subpart A Requirement related to Flares, Title V Permits that Incorporate this Requirement, and Texas SIP Requirements**

##### **Failure to Operate Flares in a Manner Consistent with Good Air Pollution Control Practices**

179. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–134, and 161–173 as if fully set forth herein.

180. Each of FHR's Flares is subject to the NSPS and therefore is subject to the General Provisions of the NSPS found at Subpart A. Under 40 C.F.R. § 60.11(d) (found in Subpart A), FHR was and is required, at all times, including periods of startup, shutdown, and malfunction, to the extent practicable, to maintain and operate its flares in a manner consistent with good air pollution control practice for minimizing emissions.

181. Subject to a reasonable opportunity for further investigation or discovery, one or more of FHR's Flares also is (are) used as a control device for compliance with 40 C.F.R. Part 61, Subpart FF, and therefore is (are) subject to the general provisions of Part 61 found at Subpart A. Under 40 C.F.R. § 61.12(c) (found in Subpart A), FHR must "maintain and operate



the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions.”

182. Good air pollution control practices for minimizing emissions at flares involve, *inter alia*, combusting essentially all molecules of hydrocarbons and hazardous air pollutants (“HAPs”) in the gases sent to the flares by ensuring that they have sufficient heating value and oxygen to allow for complete combustion. For steam-assisted flares (all of FHR’s flares are steam-assisted), good air pollution control practices for minimizing emissions also involve, *inter alia*, injecting steam at a rate that maximizes flame stability and flare combustion efficiency.

183. In order to ensure that the gases sent to flares have sufficient heating value to ensure complete combustion, good air pollution control practices for minimizing emissions at flares involve, *inter alia*, monitoring, measuring, and/or calculating the net heating value (“NHV”) of the gases in the combustion zone (“Combustion Zone Gas”) of a flare. In addition, supplemental gas must be immediately available for addition to the gas being sent to the flare (the “Vent Gas”) to ensure that the NHV of the Combustion Zone Gas is maintained at a level that ensures adequate flare combustion efficiency.

184. In order to inject steam at a proper rate, good air pollution control practices for minimizing emissions at steam-assisted flares involve, *inter alia*, monitoring the Vent Gas flow rate and steam flow rate to the flare, calculating the ratio of the Vent Gas flow rate to the steam flow rate (“S/VG”), and having sufficient controls on the steam flow rate to enable increasing or decreasing it in order to optimize S/VG to minimize emissions.

185. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions from January 2008 to the present, FHR operated one or more of its Flares without a sufficient NHV in the Combustion Zone Gas. This insufficient NHV reduced flare

combustion efficiency and resulted in emissions to the atmosphere of uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs) and carbon monoxide.

186. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions from January 2008 to the present, FHR operated one or more of its Flares with an excessively high S/VG. This excessively high S/VG increased the likelihood of flame quenching, reduced flare combustion efficiency, and resulted in emissions of uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs) and carbon monoxide.

187. From January 2008 through approximately August 2010, FHR failed to have, or failed to utilize, equipment or monitoring systems at its Flares to enable FHR to calculate the NHV in the Combustion Zone Gas of the Flares. In addition, FHR failed to have supplemental gas immediately available for addition to the Vent Gas. These failures continued for some time past August 2010.

188. From at least January 2008 through approximately August 2010, FHR failed to install, or failed to utilize properly, Vent Gas flow monitors and steam flow monitors at its Flares; failed to calculate S/VG at its Flares; and failed to have sufficient controls on steam flow to maintain an S/VG that minimized emissions at its Flares. These failures continued for some time past August 2010.

189. FHR's operation of its Flares with an insufficient NHV in the Combustion Zone Gas, without monitoring the NHV in the Combustion Zone Gas, without supplemental gas immediately available, with excessively high Steam-to-Vent-Gas ratios, without any (or without sufficient) monitors to measure and calculate S/VG, and without sufficient controls on its steam to optimize the steam injection rate violated the requirement to operate the Flares in a manner consistent with good air pollution control practices for minimizing emissions.

190. The acts and omissions identified in this Claim constitute violations:
- (a) Sections 111 and 112 of the CAA, 42 U.S.C. §§ 7411, 7412;
  - (b) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.11(d) and 61.12(c) (good air pollution control practices requirement in Subpart A of Part 60 (NSPS) and Part 61 (NESHAP/MACT));
  - (c) Section 112's implementing regulation at 40 C.F.R. § 61.349(a)(2)(ii) (relevant provision in Subpart FF), insofar as that provision requires compliance with 40 C.F.R. § 61.12(c);
  - (d) Those provisions of the Facility Title V Permits that require compliance with the statutory and regulatory requirements identified in Subparagraphs 190(a)–(c);
  - (e) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
  - (f) The federally enforceable Texas SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 190(a)–(e).

**CLEAN AIR ACT**

**CLAIM 7: FLARES**

**Violation of an NSPS and NESHAP/MACT Subpart A Requirement related to Flares,  
Title V Permits that Incorporate this Requirement,  
and Texas SIP Requirements**

**Failure to Monitor Flares to Ensure that They Are Operated and Maintained in  
Conformance with their Design**

191. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–134, 161–173, and 182–188 as if fully set forth herein.

192. Each of FHR's Flares is subject to the requirements of 40 C.F.R. § 60.18(d). Under this provision, FHR was and is required to monitor each Flare to ensure that it is operated and maintained in conformance with its design. Flares are designed, in part, to achieve high combustion efficiency of VOCs.

193. As part of its design, a steam-assisted flare must be operated within a range of S/VGs that, on the one hand, avoids smoking through an insufficient S/VG, and,

on the other hand, avoids excessive S/VG. Both insufficient and excessive S/VG reduce VOC combustion efficiency below a flare's designed efficiency.

194. In order to operate a steam-assisted flare in conformance with its design, the Vent Gas flow to the flare must be monitored; the steam flow to the flare must be monitored; the ratio of the Vent Gas flow to steam flow must be calculated; and the steam flow must be subject to sufficient control to enable increasing or decreasing it in order to maintain a design-appropriate S/VG and a high VOC combustion efficiency consistent with design parameters.

195. From January 2008 through approximately August 2010, FHR failed to install and/or properly operate Vent Gas flow monitors and steam flow monitors at its Flares; failed to calculate Steam-to-Vent-Gas ratios at its Flares; and failed to have sufficient controls on steam flow to maintain Steam-to-Vent-Gas ratios within design parameters at its Flares. These failures continued for some time past August 2010.

196. The acts and omissions identified in this Claim constitute violations of:

- (a) Sections 111 and 112 of the CAA (42 U.S.C. §§ 7411, 7412);
- (b) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(d), 63.11(b)(1);
- (c) Section 111's implementing regulations at 40 C.F.R. §§ 60.482-10(d), 60.482-10a(d), 60.482-10(e), and 60.482-10a(e) (relevant provisions of NSPS's Subparts VV and VVa) insofar as they relate to flares and require compliance with 40 C.F.R. § 60.18(d);
- (d) Section 112's implementing regulation at 40 C.F.R. § 61.349(a)(2)(iii) (relevant provision of Subpart FF), insofar as that provision requires compliance with 40 C.F.R. § 60.18(d);
- (e) Section 112's implementing regulation at 40 C.F.R. §§ 63.113(a)(1)(i) (relevant provision of Subpart G), insofar as that provision requires compliance with 40 C.F.R. § 63.11(b)(1);
- (f) Section 112's implementing regulations at 40 C.F.R. §§ 63.1103(e)(3) and Table 7 at (d) and (f); 63.982(b); 63.987; and 63.1034(b) and (b)(2)(iii) (relevant

provisions of NESHAP/MACT's Subparts YY, SS, and UU), insofar as these provisions relate to flares and require compliance with 40 C.F.R. §§ 63.11(b)(1);

- (g) Those provisions of the Facility's Title V Permit that require compliance with the statutory and regulatory requirements identified in Subparagraphs 196(a)–(f);
- (h) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
- (i) The federally enforceable Texas SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 196(a)–(h).

**CLEAN AIR ACT  
CLAIM 8: FLARES  
Texas SIP**

**Violation of Certain Texas SIP Requirements Caused by Insufficient Heating Value in  
Combustion Zone Gas, Oversteaming, and Poor Operation of Flares**

197. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–134, and 185–188 as if fully set forth herein.

198. As part of the federally enforceable Texas SIP, 37 Fed. Reg. 10,895 (May 31, 1972), EPA approved the following: “No person shall discharge from any source whatsoever one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property.” 30 Texas Admin. Code § 101.4.

199. As part of the federally enforceable Texas SIP, 75 Fed. Reg. 68,989 (Nov. 10, 2010), EPA approved, in relevant part, the following: “All pollution emission capture equipment and abatement equipment must be maintained in good working order and operated properly during facility operations.” 30 Texas Admin. Code § 101.221(a).

200. As part of the federally enforceable Texas SIP, 75 Fed. Reg. 68,989 (Nov. 10, 2010), EPA approved a provision that requires owners and operators to undertake a series of actions related to emissions events when the reportable quantity (as defined earlier in the Texas regulations) of pollutants is exceeded. 30 Texas Admin. Code § 101.201. These requirements include but are not limited to: (1) determining if a reportable emissions event occurred; (2) notifying the Texas Commission on Environmental Quality (“TCEQ”) within 24-hours of a reportable emissions event, including providing a list of specific information relating to the event; (3) creating, and retaining for five years, a final record of all reportable and non-reportable emissions events by no later than two weeks after the end of the emissions event, including retaining a list of specific information related to the event; (4) performing, if requested by TCEQ, a technical evaluation of the emissions event; and (5) submitting to TCEQ an annual emissions event report, including providing the total number of reportable and non-reportable emissions events and estimating the total quantities of air contaminants that were emitted during the emissions events. 30 Texas Admin. Code § 101.201.

201. As part of the federally enforceable Texas SIP, 75 Fed. Reg. 68989 (Nov. 10, 2010), EPA approved a provision which requires owners or operators to provide notice to the TCEQ at least ten days, or as soon as practicable, prior to any scheduled maintenance, startup, or shutdown activity that is expected to cause an unauthorized emission that equals or exceed the reportable quantity (as defined in an earlier regulation) in any 24-hour period. 30 Texas Admin. Code § 101.211(a). The notice must include a specific list of information. 30 Texas Admin. Code § 101.211(a)(1)(A)–(K). In addition, the owner or operator must create, and retain for five years, a record of such activities by no later than two weeks after the end of each scheduled

activity. 30 Texas Admin. Code § 101.211(b). The records must include a specific list of information. 30 Texas Admin. Code § 101.211(b)(1)(A)–(K).

202. As part of the federally enforceable Texas SIP, 75 Fed. Reg. 68,989 (Nov. 10, 2010), EPA approved a provision which gives the owner or operator of a source the ability to assert an affirmative defense to enforcement actions brought for:

- (a) Upset events if the owner or operator proves the existence of eleven specific criteria set forth in the provision (30 Texas Admin. Code § 101.122(b));
- (b) Unplanned maintenance, startup, or shutdown activities if the owner or operator proves the emissions were from an unplanned maintenance, startup, or shutdown activity and also proves the existence of nine specific criteria set forth in the provision (30 Texas Admin. Code § 101.122(c)); or
- (c) Planned maintenance, startup, or shutdown activities if the owner or operator proves the existence of nine specific conditions set forth in the provision (30 Texas Admin. Code § 101.122(h)).

203. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions from January 2008 to the present, FHR operated one or more of its Flares with an insufficient NHV in the Combustion Zone Gas and an excessively high S/VG. This operation increased the likelihood of flame quenching, reduced flare combustion efficiency, and resulted in emissions to the atmosphere of uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs) and carbon monoxide.

204. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions from January 2008 to the present, the acts and omissions identified in the preceding paragraph resulted in the exceedance of the reportable quantity of numerous pollutants, including but not limited to, CO and VOCs.

205. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions from January 2008 to the present, FHR engaged in the acts or omissions

identified in Paragraph 203 during all of the following periods: scheduled or planned maintenance, startup, and/or shutdown; unplanned maintenance, startup, and/or shutdown; and upset events.

206. Subject to a reasonable opportunity for further investigation or discovery, FHR did not satisfy the criteria required to assert an affirmative defense to the emissions resulting from the acts and omissions identified in Paragraph 203.

207. Subject to a reasonable opportunity for further investigation or discovery, at no time did FHR submit to TCEQ any notifications or any initial, final, or annual reports as a result of the emissions resulting from the acts or omissions identified in Paragraph 203. Subject to a reasonable opportunity for further investigation or discovery, at no time did FHR create any records relating to the emissions resulting from the acts or omissions identified in Paragraph 203.

208. The acts and omissions identified in Paragraph 203 of this Claim constitute violations 30 Texas Admin Code §§ 101.4, 101.221(a), 101.201, and 101.211(a) and (b) ; those provisions of the Facility's Title V permit that requires compliance with the SIP provisions identified in this Claim; the prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and the provisions found in the federally enforceable Texas Title V program that correspond to the prohibitions in 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

**CLEAN AIR ACT  
CLAIM 9: LDAR  
40 C.F.R. Part 63, Subpart UU**

**Failure to Equip Open-Ended Lines with a Closure Device**

209. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–131, and 135–141 as if fully set forth herein.



210. With certain exceptions not relevant here, Subpart UU requires each open-ended valve or line to be equipped with a cap, blind flange, plug, or second valve. 40 C.F.R. § 63.1033(b)(1).

211. On approximately June 1, 2009, the Facility's valves numbered 1601 in the GHU and 10442 in the OSBL—which were open-ended, as that term is defined in Subpart UU—were not equipped with a cap, blind flange, plug, or second valve, in violation of Section 112 of the CAA, 42 U.S.C. § 7412, and the implementing regulation at 40 C.F.R. § 63.1033(b)(1).

**CLEAN AIR ACT  
CLAIM 10: LDAR**

**40 C.F.R. Part 60, Subpart VV; 40 C.F.R. Part 63, Subparts H and UU**

**Failure to Make a First Attempt to Repair Leaking Valves and Connectors within 5 Days**

212. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–131, and 135–141 as if fully set forth herein.

213. 40 C.F.R. Part 60, Subpart VV and 40 C.F.R. Part 63, Subparts H and UU require that a first attempt at repair of a valve be made no later than 5 calendar days after a leak is detected. 40 C.F.R. §§ 60.482-7(d)(2) (Part 60, Subpart VV); 63.168(f)(2) (Part 63, Subpart H); 63.1025(d) (referencing 62.1024) (Part 63, Subpart UU).

214. Between November 2003 and November 2008, a first attempt at repair of seven valves in the LOU, 1 valve in the CYLCO unit, and 1 valve in the GHU or PHU was not made within 5 calendar days after a leak was detected, in violation of 40 C.F.R. §§ 60.482-7(d)(2) (Part 60, Subpart VV); 63.168(f)(2) (Part 63, Subpart H); 63.1025(d) (referencing 63.1024) (Part 63, Subpart UU).

215. 40 C.F.R. Part 60, Subpart VV requires that a first attempt at repair of a connector be made no later than 5 calendar days after a leak is detected. 40 C.F.R. §§ 60.482-8(c)(2) (Part 60, Subpart VV).

216. Between November 2003 and November 2008, a first attempt at repair of a four connectors in the LOU was not made within 5 calendar days after a leak was detected, in violation of 40 C.F.R. §§ 60.482-8(c)(2).

**CLEAN AIR ACT**  
**CLAIM 11: LDAR**  
**40 C.F.R. Part 60, Subpart VV; 40 C.F.R. Part 63, Subpart UU**

**Failure to Make a Final Attempt to Repair Leaking Valves and Connectors within 15 Days**

217. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–131, and 135–141 as if fully set forth herein.

218. 40 C.F.R. Part 60, Subpart VV requires that a final attempt at repair of a valve be made no later than 15 calendar days after a leak is detected. 40 C.F.R. § 60.482-7(d)(1).

219. Between November 2003 and November 2008, a final attempt at repair of twelve valve in the LOU was not made within 15 days after a leak was detected, in violation of 40 C.F.R. § 60.482-7(d)(1).

220. 40 C.F.R. Part 60, Subpart VV, and 40 C.F.R. Part 63, Subpart UU require that a final attempt at repair of a connector be made no later than 15 calendar days after a leak is detected. 40 C.F.R. §§ 60.482-7(d)(1) (Part 60, Subpart VV); 63.1027(d) (referencing 63.1024) (Part 63, Subpart UU).

221. Between November 2003 and November 2008, a final attempt at repair of a thirteen connectors in the LOU and 1 connector in the PHU was not made within 15 days after a leak was detected, in violation of 40 C.F.R. §§ 60.482-7(d)(1), 63.1027(d) (referencing 63.1024).

**CLEAN AIR ACT**  
**CLAIM 12: LDAR**  
**40 C.F.R. Part 60, Subpart VV; 40 C.F.R. Part 61, Subpart V;**  
**40 C.F.R. Part 63, Subpart H**

**Failure to Remonitor Valves after Repairs**

222. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–131, and 135–141 as if fully set forth herein.

223. 40 C.F.R. Part 60, Subpart VV and 40 C.F.R. Part 61, Subpart V require that, after a repair, a valve must be remonitored monthly until a leak is not detected for two successive months. 40 C.F.R. §§ 60.482-7(c)(2) (Part 60, Subpart VV); 61.242-7(c)(2) (Part 61, Subpart V).

224. 40 C.F.R. Part 63, Subpart H requires that a valve must be remonitored at least once within the first three months after a repair. 40 C.F.R. § 63.168(f)(3).

225. On numerous occasions between November 2003 and November 2008, remonitoring of repaired valves in the LOU, the UDEX unit, and the CYCLO unit was not done. These failures were in violation of 40 C.F.R. §§ 60.482-7(c)(2) (Part 60, Subpart VV); 61.242-7(c)(2) (Part 61, Subpart V); 63.168(f)(3) (Part 63, Subpart H).

**CLEAN AIR ACT**  
**CLAIM 13: LDAR**  
**40 C.F.R. Part 60, Subpart VV; 40 C.F.R. Part 61, Subpart V;**  
**40 C.F.R. Part 63, Subparts H and UU**

**Failure to Monitor “Difficult-to-Monitor” Valves at least Annually**

226. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–131, and 135–141 as if fully set forth herein.

227. 40 C.F.R. Part 60, Subpart VV, 40 C.F.R. Part 61, Subpart V, and 40 C.F.R. Part 63, Subparts H and UU require that the owner or operator of a valve that is designated as

difficult-to-monitor (“DTM”) shall follow a written plan that requires monitoring of the valve at least once per calendar year. 40 C.F.R. §§ 60.482-7(h)(3) (Part 60, Subpart VV); 61.242-7(h)(3) (Part 61, Subpart V); 63.168(i)(3) (Part 63, Subpart H); and 63.1022(c)(2) (Part 63, Subpart UU).

228. On numerous occasions between November 2003 and November 2008, annual monitoring of DTM valves in the LOU, UDEX unit, and PHU or GHU was not done, in violation of 40 C.F.R. §§ 60.482-7(h)(3) (Part 60, Subpart VV); 61.242-7(h)(3) (Part 61, Subpart V); 63.168(i)(3) (Part 63, Subpart H); and 63.1022(c)(2) (Part 63, Subpart UU).

**CLEAN AIR ACT  
CLAIM 14: LDAR  
40 C.F.R. Part 60, Subpart VV**

**Failure to Comply with Delay of Repair Requirements Prior to Placing Equipment  
on the Delay of Repair List**

229. Plaintiff realleges and incorporates by reference Paragraphs 8–10, 128–131, and 135–141 as if fully set forth herein.

230. 40 C.F.R. Part 60, Subpart VV prohibits delaying the repair of a leaking piece of equipment unless a repair within 15 days of detecting a leak is technically infeasible without a process unit shutdown. 40 C.F.R. § 60.482-9.

231. Subject to a reasonable opportunity for further investigation or discovery, on numerous occasions between November 2003 and November 2008, equipment was placed on the Facility’s Delay of Repair list without it being technically infeasible to repair the leak within 15 days without a process unit shutdown, in violation of 40 C.F.R. § 60.482-9.

**CLEAN AIR ACT: REQUEST FOR RELIEF**

232. For the violations asserted in Claims 1 through 14, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and the Civil Penalties Inflation Act of 1990, FHR is subject to injunctive relief, mitigation of the effects of excess emissions, and civil penalties of up to \$27,500 per day for each violation between January 31, 1997, and March 15, 2004; up to \$32,500 per day for each violation between March 16, 2004, and January 12, 2009; and up to \$37,500 per day for each violation after January 12, 2009.

**PRAYER FOR RELIEF**

WHEREFORE, based upon the allegations in Paragraphs 1–232 of this Complaint, the United States requests that this Court:

1. Permanently enjoin FHR from operating its Facility except in accordance with the CAA and all applicable federal regulations and applicable federally enforceable state regulations;
2. Order FHR to operate its Facility in compliance with the CAA statutory and regulatory requirements set forth herein, the applicable SIP requirements, and the PSD, Nonattainment NSR, Minor NSR, and Title V permit applicable to the Facility;
3. Order FHR to take other appropriate actions to remedy, mitigate, and offset the harm to public health and the environment caused by the violations of the CAA alleged herein;
4. Assess a civil penalty against FHR of up to \$27,500 per day for each violation of the CAA occurring between January 31, 1997, and March 15, 2004; up to \$32,500 for each violation of the CAA occurring between March 16, 2004, and January 12, 2009; and up to \$37,500 per day for each violation occurring on and after January 13, 2009;

5. Award Plaintiff its costs of this action; and
6. Grant such other relief as the Court deems just and proper.

Respectfully Submitted,

/s/ Robert G. Dreher  
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